



An official website of the United States government

[Here's how you know](#)

Log in

Nucleotide ▾

GenBank

Severe acute respiratory syndrome coronavirus 2 isolate SARS-CoV-2/Synthetic construct/GBR/Omicron Variant/2022 surface glycoprotein (S) gene, complete cds

GenBank: OM858820.1

[FASTA](#) [Graphics](#)[Go to:](#)

LOCUS OM858820 3816 bp RNA linear VRL 31-MAY-2022
DEFINITION Severe acute respiratory syndrome coronavirus 2 isolate
SARS-CoV-2/Synthetic construct/GBR/Omicron Variant/2022 surface
glycoprotein (S) gene, complete cds.
ACCESSION OM858820
VERSION OM858820.1
KEYWORDS .
SOURCE Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)
ORGANISM [Severe acute respiratory syndrome coronavirus 2](#)
Viruses; Riboviria; Orthornavirae; Pisuviricota; Pisoniviricetes;
Nidovirales; Coronavirineae; Coronaviridae; Orthocoronavirinae;
Betacoronavirus; Sarbecovirus; Severe acute respiratory
syndrome-related coronavirus.
REFERENCE 1 (bases 1 to 3816)
AUTHORS Jung, J.-W. and Lomonosoff, G.P.
TITLE Plant-based expression and characterization of SARS-CoV-2
virus-like particles presenting a native spike protein
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 3816)
AUTHORS Jung, J.-W. and Lomonosoff, G.P.
TITLE Direct Submission
JOURNAL Submitted (28-FEB-2022) Biochemistry and Metabolism Department,
John Innes Centre, Norwich research park, Colney Ln, Norwich, NFK
NR4 7UH, United Kingdom
COMMENT ##Assembly-Data-START##
Sequencing Technology :: Sanger dideoxy sequencing
##Assembly-Data-END##
FEATURES
source Location/Qualifiers
1..3816
/organism="Severe acute respiratory syndrome coronavirus
2"
/mol_type="genomic RNA"
/isolate="SARS-CoV-2/Synthetic construct/GBR/Omicron
Variant/2022"
/isolation_source="SARS-CoV-2 Spike protein"
/host="synthetic construct"
/db_xref="taxon:2697049"
/country="United Kingdom: Norfolk, Norwich"
/collection_date="2022-01-28"
/note="derived from Severe acute respiratory syndrome
coronavirus 2 Omicron variant (B.1.1.529) and
codon-optimized for N.benthamiana"
[gene](#) 1..3816
/gene="S"
[CDS](#) 1..3816
/gene="S"
/codon_start=1
/product="surface glycoprotein"
/protein_id="UMA71172.1"
/translation="MFVFLVLLPLVSSQCVNLRTRTQLPPAYTNSFTRGVYYPDKVFR
SSVLHSTQDLFLPFFSNVTWFHAIHVSNGTKRFDNPVLPFNDGVVFASTKSNIIIR
GWIFGTTLDSTQSLINVNATNVVIVKVECFQCNDPFLDVVYHKNKSKWMSGVYSS
ANNCTFEYVSQPF LMDLEGKQGNFKNLREFVFNIDGYFKIYSKHTPINLVRDLPQGF
SALEPLVDLPIGINITRFQTLALHRSYLTGDSSSGWTAGAAAYVGYLQPRTFLLK
YNENGITIDAVDCALDPLSETKCTLKSFTVEKGIYQTSNFRVQPTESIVRFPNITNLC
PFGEVFNATRFASVYAWNKRISNCVADYSVLVNSASFSTFKCYGVSPTKLNDLCFTN
VYADSFVIRGDEVQRQIAPGQTKIADYNYKL PDDFTGCVIAWNSNNLDSKVGGNYNR
YRLFRRKSNLKPFERDISTEIQAGSKPCNGVEGFNCYFPLQSYGYFQPTNGVGYQPYRV
VVLSEFELHAPATVCGPKKSTNLVKNKCVNFNGLTGTGVLTESNKKFLPFQGFGRD
IADTGTAVRDPQTLLEILDITPCSGGVSVITPGTNTSNQVAVLYQGVNCTEVPVPIHA
DQLTPTWRVYSTGNSVFTQTRAGLIGAEHVNSYECIDIIGAGICASYQTQNSRRRA

RSVASQSIAYTMSLGAENSVAYSNNSIAIPTNFTISVTEILPVSMTKTSVDCTMYI
 CGDSTECSNLLQYGSFCTQLNRALTGIAVEQDKNTQEVFAQVKQIYKTPPIKDFGGF
 NFGQILPPDPSPKSRSFIEDLLFNKVTLADAGFIKQYGDCLGDIARDLICAQKFNGL
 TVLPPLL TDEMQYTSALLAGTITSGWTFGAGAAIQIPFAMQYRNGIVGTQNVL
 YENQKLIANQFNSAIGKIQDSLSSASALGKLQNVVNQNAQALNTLVKQLSSNFGAIS
 SVLNDILSRDLKVEAEVQIDRLITGRQLSLQTYVTQQLIRAAEIRASANLAATKMSEC
 VLQSKRVDGFCGKGHYHLSFQPQSAHPGVFLHVTYVPAQEKNF TPAICHGDKAHFP
 REGVFSVNGTHWFVTQRNFYEPQIITDNFTVSGNCDVWIGIVNNTVYDPLQPELDSF
 KEELDKYFKNHTSPDVLGDISGINASVNIQKEIDRLNEVAKNLNESLIDLQELGKY
 EQYIKWPWYIWLGFIAGLIAIVMTIMLCMTSCCSCCKGCCSCGSCCKFDEDDSEPV
 LKGVKLHYT"

ORIGIN

```

1 atgttcctgt tctttgtgct tctgccgctg gtgtcatctc agtgtgtgaa tcttaggact
61 aggaccagc ttcctcctgc ctactactat tctttcacca ggggagtgtg ctacccgga
121 aagggtttca ggtcatctgt gcttactctc acccaggatc tgttctctgc gttcttctc
181 aatgtgacct ggttccacgc tatccatgtg tctgttacta atggcaccaa gcggttcgat
241 aacctgtgct tgcctttcaa cgatggcgtg tactttgcta gcaccgagaa gtccaacatc
301 atccgtggtt ggaatcttgc caccacctgt gattctaaga cccagtcctc tctgatcgtg
361 aacaacgcta ccaacgtggt gattaaggtg tgcgagttcc agttctgcaa cgacccttct
421 ctggacgtct actaccacaa gaacaacaag agctggatgg aaagcggggg gtacagctct
481 gctaacaatt gcaccttcga gtacgtgagc cagcctttct tgatggatct tgaaggtaa
541 cagggaacct tcaagaacct gcgggaattc gtgttaaga acatcgacgg ctactttaag
601 atctacagca ccaacacccc gatcaacctt gtgagagatc ttctcagggt cttctctgct
661 ctgagcctc ttgtggatct gcctatcggt atcaacatta cccggttcca gaccttgctt
721 gctctgcaca ggtcttatct taccctgggc gattcttctt ctggttggaac tgctggtgca
781 gctgcttact acgttggtta tcttcagcct aggaccttcc tgcgaagta caacgagaac
841 ggcaccatta accgatctgt ggattgtgct ttggaccgca tttctgagac taagtgcacc
901 ctgaagcttt tcaccgttga gaagggaatc taccagacca gcaactttag ggtgcagcct
961 accgagtcta ttgtcggtt ccctaacatc accaacttgt gccctttcgg cgagggtgtc
1021 aatgtacta ggttcgcttc tgtgtacgcc tggaaaccga agcggatctt taactcgtg
1081 ccgattaca gcgtgctgta caactcagct agcttcagca ccttcaagtg ctacgggtgtg
1141 tctctacca agctgaacga tctctgcttc accaactgtg acgctgactc tttcgtgatc
1201 aggggtgatg aggttaggca gattgctcct ggtcagaccg gaaagatcgc tgactacaac
1261 tacaagctgc cggatgattt caccggatgc gtgatcgctt ggaacagcaa caacctggat
1321 tcaaaagttg gcggcaacta caattacagg tacaggctgt tccggaagtc taacctgaag
1381 cctttcgaga gggatatctc caccgagatc tatcaggctg ttagcaagcc ttgcaatggt
1441 gttgaggttt tcaactgcta cttcccgtt cagtcatacg gtttcagacc tactaatggt
1501 gtgggttacc agccttacag agtgggtggt ctgtcttctg agcttcttca tgcctctgct
1561 actgtgtgct gtcctaaaga gtctaccaac ctggctcaaga acaagtgcgt gaacttcaac
1621 ttcaacggcc ttaccggaac tgggtgtgct actgagtcta acaagaagtt cctgcctttc
1681 cagcagtttc gcagggatat tgctgatacc actgatgctg ttcgggaccc tcagaccttg
1741 gagattcttg atattacccc gtgcagcttc ggtggcgtgt cagttattac tcctggcacc
1801 aacacctctg accaggtggc agttctttat caggggcgtga actgtactga ggtgccagtg
1861 gctattcacg ctgatcagtt gactcctact tggcgggttt acagcaccgg atctaagtgt
1921 ttccagacta gagctgggtg cctgatcggt gctgagcatg tgaacaatag ctacgagtgc
1981 gatattcccta tggcgctggt tatttgcgt tcttaccaga ctacagcaa ctctagaagg
2041 cgggctagat ctgttgccag ccagcttatt atcgctaca ccatgtctct ggcgctgag
2101 aattctgtgg cctactccaa caactctatc gctatcccta ccaacttcac catctccgtg
2161 actaccgaga tttctgctgt gtctatgacc aagacctcag tggattgcac catgtacatc
2221 tgcggtgatt ctaccgagtg ctctaacctg ctctgcagt acgggtcttt ctgcaccag
2281 cttaacaggg cttctactgg tattgtctgc gagcaggaca agaaccacca agagggtttc
2341 gctcaggatc agcagatcta taagaccctt ccgatcaagg atttcggcgg gttcaacttc
2401 ttccagatcc tgcttgatcc tagcaagcgg agcaagcggg ctttcattga ggaatctgctg
2461 ttcaacaagg tgaccttgct tgatgctggc ttcatgaagc agtcaggcga ttgccttggt
2521 gatattcgct ctagggatct gatctgcgct cagaagttca acgggttgac ttgtctcctc
2581 cctctgctta ccgatgagat gattgcccag tacacctctg ctctgcttgc tggaaactatt
2641 acctctggat ggaacttctg agctgtgctt gcacttcaga ttcttctgc tatgagatg
2701 gcctacaggt tcaacggaat tggcgttacc cagaacttcc tgtacgagaa ccagaagctt
2761 atcgccaacc agttcaacag cgctatcggc aagatccagg actccctttc ttctaccgct
2821 tctgctttgg gcaagcttca gaatgtggtg aaccagaacg ctacggctct taacactctc
2881 gtgaagcagc tgcctcttaa cttcgcgctc attagctcgg ttctcaacga tattctgagc
2941 aggttgata aggttgaggc tagagttcag atcgacaggc ttattactgg caggcttctg
3001 agccttcaga cttacgttac acagcagctg atccgggctg ctgaaattag ggcttctgct
3061 aatcttgccg ccaccaagat gtctgagtggt gtgcttggtc agagcaagag ggttgacttt
3121 tgcggttaagg gttaccacct gatgagcttc cttcaatctg ctctctatgg ttgtggtttc
3181 cttcacgtta cctacgttcc agctcaagag aagaatttca ccaccgtcc agctatctgc
3241 cagatggta aggtcattt tctctgtgag ggcgtgttcg tgtctaattg tactcattgg
3301 ttctgtgacc agcggaaatt ttacgagcct cagattatca ccaccgacaa cacttctgtg
3361 agcggcaatt gtgatgtggt gatcggcatt gtgaacaaca ccgtgtacga tctcttctag
3421 ccagagctgg acagcttcaa agagggaactg gacaagtact tcaaaaacca cactctcca
3481 gatgtggacc tgggtgatat ctctgggac atgtgtagcg tggtagaat ccagaagaag
3541 atcgaccggc ttaacgaggt ggcaagaac cttacgaga gcctgattga cctgcaagag
3601 cttggttaag acgagcagta catcaagtg ccgtgtgata tttggctggg ttctattgct
3661 ggctgtatgc ctattgtgat ggtgacctt atgctgtgct gcagcactc ttgtctctct
3721 tgtcttaagg gatgctgctc atgtgggagc tgcgtcaagt ttgatgagga tgattctgag
3781 cctgtgctga aggtgtgaa gttgcattac acctag

```

//